

# **EXHIBIT 12**

## **Excerpts from the Second Deposition of Dr. Hal J. Singer**

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEVADA

- - -

CUNG LE, NATHAN QUARRY, JON: CIVIL ACTION  
FITCH, BRANDON VERA, LUIS :  
JAVIER VAZQUEZ, and KYLE :  
KLINGSBURY on behalf of :  
themselves an others :  
Similarly situated, :  
Plaintiffs : CASE NO.  
: 2:15-cv-01045-RFB  
vs. : (PAL)  
:  
ZUFFA, LLC d/b/a ULTIMATE :  
FIGHTING CHAMPIONSHIP and :  
UFC, :  
Defendants :

- - -

Tuesday, January 23, 2018  
DAY 2

- - -

Continuation of videotaped  
deposition of HAL J. SINGER, Ph.D., taken  
pursuant to notice, was held at the  
offices of BERGER & MONTAGUE, P.C., 1622  
Locust Street, Philadelphia, PA 19103,  
commencing at 10:19 a.m., on the above  
date, before Lori A. Zabielski, a  
Registered Professional Reporter and  
Notary Public in and for the Commonwealth  
of Pennsylvania.

- - -

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1 it's not -- it's certainly not necessary  
2 to engender competitive outcomes so long  
3 as the markets are more open, less  
4 restrictive and rivals get a foothold and  
5 are able to put forward compelling  
6 matches for MMA audiences.

7 Q. Are there -- at this point,  
8 following your rebuttal report, is it  
9 your opinion that there are many ways to  
10 get to a lower foreclosure share that  
11 would constitute an appropriate but-for  
12 world?

13 A. Well, remember, all that  
14 needs to happen to get to a lower  
15 foreclosure share is that Zuffa would  
16 need to change the parameters of its  
17 contracts with fighters in such a way as  
18 to ensure that the cumulative duration of  
19 the restrictions don't take you over some  
20 level that a Court would deem  
21 exclusionary.

22 That's all you need to get  
23 the foreclosure share down. We had  
24 talked about whether 30 months -- 36

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1 months was too long and, you know, what  
2 would be a -- what would be a duration  
3 that would be acceptable to a Court.

4 That, to me, is really the  
5 key element of what you need in a  
6 contract to bring the foreclosure share  
7 down to levels of zero, 20 or 30 percent.

8 After that, what we are doing here is we  
9 are just filling in other aspects of the  
10 but-for world that would complement or be  
11 consistent with that -- with that  
12 outcome.

13 Q. All right. So in your  
14 opinion, does but-for world have to  
15 include contracts that are -- exclusive  
16 contracts that are no longer than one  
17 year?

18 A. Well, I think we went  
19 through this in the first -- in the first  
20 deposition. But, again, I mean, my  
21 answer is not going to change. It's  
22 going to be -- it's going to depend on  
23 where -- where the Court would draw the  
24 line as to what's considered to be an

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1 exclusionary arrangement.

2 Now, I have tried to inform  
3 the Court based on what I think is the  
4 average career span of a fighter and  
5 that -- and that when we -- when we  
6 figure out how to draw that line, we  
7 ought to take into consideration how much  
8 of a fighter's remaining career span is  
9 left after they sign with Zuffa.

10 But depending on where that  
11 line gets drawn, Zuffa could then  
12 construct its contracts in such a way as  
13 to comply with that -- with that line,  
14 and with an important caveat: So long as  
15 30 percent, say, is tolerated, they  
16 could -- they could carve off 30 percent  
17 or, in fact, more if the market share is  
18 not quite 100 percent. They could carve  
19 off a certain portion of their fighters  
20 and subject them to potentially longer  
21 contracts.

22 So there is not -- there is  
23 not a -- there is not one way to get a  
24 foreclosure share under 30, as we

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1 discussed. There are a lot of ways to  
2 get it down. But these other parameters  
3 that I am informing right now are things  
4 that help fill in what the but-for world  
5 would look like. They are meant to  
6 complement or be consistent with. But  
7 they're -- I think that while we have  
8 been going in circles, these other  
9 parameters, while important, aren't the  
10 levers that are pushing foreclosure down  
11 to 30, 20 or zero percent.

12 Q. Okay. One simple point I  
13 had been wondering about based on the  
14 support, you had told me before that  
15 there is not one way to get foreclosure  
16 share under 30; there are a lot of ways  
17 to get it down.

18 That's still your opinion?

19 A. Oh, sure. I just gave  
20 you -- I just gave you two ways to do it.  
21 One could be across the board, every  
22 single contract contains the same  
23 provision. That would get you down.  
24 Another way to do it would be to do a

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1 more open, there is more worker  
2 mobility.

3 Whether or not my model can  
4 accommodate that distinction, I  
5 would want to think about it some  
6 more. I just haven't thought  
7 about it yet.

8 BY MR. ISAACSON:

9 Q. Looking at paragraph 198,  
10 there is a couple things you have listed  
11 in your plausible but-for world, the  
12 third of which is clauses that allow  
13 fighters enhanced mobility.

14 What do you mean by that?

15 A. I guess since I have already  
16 listed right-to-match, I would certainly  
17 include right-to-match in that. But I am  
18 thinking of the other -- the other  
19 clauses that are extending the duration  
20 or otherwise, tying up or sewing up of  
21 fighters with Zuffa.

22 Q. And the various tolling  
23 provisions?

24 A. Correct. Tolling or

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1 exclusive -- the exclusive provision. I  
2 mean, we could -- we could go through  
3 each one, but anything that --

4 Q. I would rather not.

5 A. Okay.

6 MR. CRAMER: Were you done  
7 with your answer? Anything that  
8 you were about to say.

9 THE WITNESS: Yeah, anything  
10 that extends the duration or  
11 otherwise lessens mobility.

12 BY MR. ISAACSON:

13 Q. Okay. So but when you are  
14 saying a plausible but-for world includes  
15 clauses that allow fighters enhanced  
16 mobility, what are you referring to?

17 MR. CRAMER: Asked and  
18 answered.

19 BY MR. ISAACSON:

20 Q. For example, are you  
21 referring to eliminating all of those  
22 tolling restrictions that you have  
23 pointed to or something less? I am  
24 trying to get an idea of what you are --

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1 what you are doing here.

2 MR. CRAMER: Asked and  
3 answered.

4 THE WITNESS: I am referring  
5 to any of the restrictions. I am  
6 not -- I am saying that it would  
7 be plausible that most, if not  
8 all, of them would go away. It's  
9 conceivable that some would stick  
10 around. But I think that what I  
11 am trying to capture is a world in  
12 which -- in which fighters have  
13 greater mobility.

14 BY MR. ISAACSON:

15 Q. So when you are referring to  
16 clauses that allow fighters enhanced  
17 mobility, are you assuming that most or  
18 all of the tolling provisions go away?

19 A. If those tolling provisions  
20 have the effect of extending the duration  
21 of the contracts beyond, say, 12 months,  
22 then I think that in a more open and  
23 competitive environment, those tolling  
24 restrictions would likely go away.

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1 Q. All right. So by clauses  
2 that allow fighters enhanced mobility,  
3 you are thinking of tolling provisions  
4 that have the effect of extending the  
5 duration of the contracts beyond 12  
6 months?

7 A. Correct.

8 Q. And in your plausible  
9 but-for world, all of those tolling  
10 provisions would go away, most of them?

11 A. I think I gave you an  
12 example where I could conceive of a  
13 champion's clause staying around but  
14 effectively being negated by virtue of  
15 other more mobility. I think the point  
16 that I am trying to make here, just so  
17 that it's clear if it wasn't, is that I  
18 am trying to give some granularity to  
19 what Zuffa's most likely or most  
20 plausible contract would be in a but-for  
21 world, and given the -- given the record  
22 evidence, this is the best that I can do  
23 at trying to give some granularity to  
24 that contract.

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1 Q. And from that -- and from  
2 that, your models -- your damages models  
3 and your second impact model would  
4 estimate -- would estimate damages impact  
5 from that but-for world?

6 MR. CRAMER: Objection to  
7 form.

8 Go ahead.

9 THE WITNESS: If you give me  
10 a but-for foreclosure share, I can  
11 tell you what the -- what the --  
12 how much wages would go up by.

13 BY MR. ISAACSON:

14 Q. All right. Now, if the  
15 Court were to rule that an exclusionary  
16 contract is over two years and it's not  
17 exclusionary, it's two years or less, if  
18 you -- would an appropriate but-for world  
19 then be contracts that were two years or  
20 less, plus some other parameters, and  
21 that would achieve a foreclosure share of  
22 30 percent or less?

23 MR. CRAMER: I am going to  
24 object to the extent that this

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1 calls for a legal conclusion.

2 But go ahead and answer, if  
3 you understand the question.

4 THE WITNESS: Let me -- it  
5 was a two-parter and let me take  
6 the second part, which is probably  
7 easier. And that is, would it --  
8 would it get you to a foreclosure  
9 share below 30 percent? And I  
10 think that by the construction of  
11 your hypothetical, it would, if I  
12 understood it correctly. You are  
13 saying the Court deems anything in  
14 excess of 24 months --

15 MR. ISAACSON: Right.

16 THE WITNESS: -- to be  
17 exclusionary -- let me finish --  
18 and you asked me to posit a world  
19 in which the contracts were  
20 exactly 24 months.

21 BY MR. ISAACSON:

22 Q. My intent is this question  
23 two is the same as the last question. If  
24 the Court has ruled that above two years

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1 is exclusionary and in the first  
2 question, that they ruled that above one  
3 year was exclusionary. Everything else  
4 -- everything else is the same.

5 MR. CRAMER: Same objection.  
6 BY MR. ISAACSON:

7 Q. You would still -- if Zuffa  
8 moved its contracts down to two years or  
9 less, that would achieve foreclosure  
10 shares of 30 percent or less?

11 A. I think that if we draw the  
12 line, if one were to draw the line at 25  
13 months and if -- and if all of the  
14 contracts came in at 24 months, then it's  
15 almost tautological. If that's how we  
16 define foreclosure, then the foreclosure  
17 would come in at less than 30 percent.

18 Q. And in that situation, you  
19 would reach the same conclusion as to the  
20 amount of damages and your second impact  
21 analysis -- second impact model would  
22 remain the same?

23 MR. CRAMER: Objection to  
24 form, incomplete hypothetical,

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1 calls for a legal conclusion.

2 THE WITNESS: I want to  
3 think about it a little more, but  
4 sitting here, it's not -- it's not  
5 obvious how I would change my  
6 impact model or damages model  
7 based on that hypothetical. I  
8 probably would want to think about  
9 it a little more.

10 But my -- what's giving me  
11 some reservation is that -- I  
12 wouldn't draw the line at 24. I  
13 think the 24 represents too much  
14 of a fighter's life span or career  
15 span.

16 And so that -- while it  
17 would be a significant improvement  
18 over where things are today, it's  
19 conceivable that a movement  
20 from 36, roughly where we are  
21 today, to 24, would it engender  
22 different competitive effects than  
23 a movement from 36 to 12? I mean,  
24 certainly at 12, the market is

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1 Q. Okay. The next thing you  
2 say is an easier and more certain route  
3 to free-agency.

4 What does that mean beyond  
5 what you have already described?

6 A. I think that might just be a  
7 restatement of the things that I have  
8 described.

9 Q. All right. And then  
10 enhanced co-promotion, what do you mean  
11 by that?

12 A. So I mean co-promotion in  
13 the sense that there would be no  
14 restrictions on fighters to participate  
15 in an event with a rival MMA promoter.  
16 So it's perhaps a broader definition than  
17 literally engaging in the -- in the  
18 co-promotion. I think that it would make  
19 sense in that world for both promoters to  
20 engage in promotion, they would have  
21 incentives to do so.

22 But the restriction that I  
23 am -- that I have in mind is the  
24 restriction that would prevent, say, a

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1 Zuffa fighter for participating in an  
2 event with a non-Zuffa or Zuffa rival  
3 promoter.

4 Q. So you have referred in this  
5 to exclusive contracts of one year or  
6 less. Well, maybe not.

7 When you said -- when you  
8 say "substantially shorter duration  
9 fighter contracts of one year or less,"  
10 are those exclusive contracts or  
11 nonexclusive contracts?

12 A. Well, they are exclusive  
13 contracts but with a caveat, which is  
14 that if there is an opportunity to  
15 participate in an event with a rival  
16 promoter, if I have No. 1 and you have  
17 No. 2 and there is an opportunity to put  
18 on an incredible show, that there  
19 wouldn't be impediments, contractual  
20 impediments to preventing that from  
21 happening.

22 Q. So in your -- in this world,  
23 there would be one-year exclusive  
24 contracts; however, if there was a

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1 Bellator event that a UFC fighter wanted  
2 to fight in, the UFC fighter could go do  
3 that even during the one-year period?

4 A. I think that's what I have  
5 in mind.

6 Q. And the result of that would  
7 be that the UFC and Bellator or other  
8 promoters would end up co-promoting  
9 events; is that your assumption?

10 A. I think that once you set in  
11 motion the event and it -- and it  
12 features a Zuffa fighter, that Zuffa  
13 would have strong unilateral incentives  
14 to want to promote that event, just as  
15 they did with the Conor McGregor boxing  
16 match.

17 Q. And in your opinion, what  
18 would happen to MMA in this world, would  
19 most events be co-promoted?

20 A. Well, I don't -- I don't  
21 have an opinion as to -- as to whether  
22 most would be. I am just suggesting that  
23 there would be more -- there would be  
24 more co-promotion than what occurs today.

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1 Q. All right. And is it -- am  
2 I correct that with regards to each one  
3 of these pieces of your but-for world,  
4 such as enhanced co-promotion, you don't  
5 have an opinion as to how much that piece  
6 would reduce foreclosure share?

7 MR. CRAMER: Objection to  
8 form.

9 THE WITNESS: I just don't  
10 understand the question. I don't  
11 think that foreclosure share, as I  
12 have constructed it, would be  
13 sensitive to the level of  
14 co-promotion. I think, again, we  
15 might have the causality running  
16 in the other way.

17 BY MR. ISAACSON:

18 Q. So in terms -- in terms of  
19 your estimates of damages -- various  
20 estimates of damages, you are not able to  
21 isolate how much of those damages, for  
22 example, are due to the lack of the  
23 enhanced co-promotion that you describe  
24 here?



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1 that fair?

2 A. I haven't expressed an  
3 opinion. It seems to me a restriction of  
4 that nature could be consistent with a --  
5 with a lower foreclosure share, and so as  
6 an economist, remember, I go back -- my  
7 model turns on the foreclosure share.  
8 And so that's how I would attempt to  
9 answer that question in the first  
10 instance. And I don't think that I -- my  
11 model or anything that I have written or  
12 read can inform in any kind of  
13 intelligent way an answer to that  
14 question.

15 Q. Okay. The -- in looking,  
16 again, at the substantially shorter  
17 duration fighter contracts of one year or  
18 less, does that -- does that put any  
19 limit on Zuffa re-signing or extending  
20 the contract before the year expires in  
21 exchange for paying the fighter more  
22 money?

23 A. Well, I think that the  
24 plaintiffs are complaining that Zuffa is

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1 strategically using certain provisions of  
2 the contract to lock fighters into  
3 effectively perpetual extensions when  
4 they want them. And given that that is  
5 part of the challenged conduct, I  
6 would -- I would at least hope that if we  
7 were to rewrite these in a way that they  
8 were in compliance with the antitrust  
9 laws, that that sort of gamesmanship  
10 would be -- would be either disallowed or  
11 much harder to engage in.

12 Q. Right. But in your opinion,  
13 would those rewrite of the contracts  
14 prohibit Zuffa from simply offering  
15 fighters more money to extend the  
16 contract beyond one year?

17 MR. CRAMER: Incomplete  
18 hypothetical.

19 THE WITNESS: I don't think  
20 that I have an opinion on that.

21 BY MR. ISAACSON:

22 Q. And if Zuffa did  
23 successfully extend the contracts beyond  
24 one year by simply paying the fighters

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1 more money and did that with the same  
2 amount of fighters as today, have two- or  
3 three-year contracts, would that be  
4 anticompetitive?

5 MR. CRAMER: Incomplete  
6 hypothetical, form.

7 THE WITNESS: Well, when you  
8 say did it the same as today, I  
9 mean --

10 BY MR. ISAACSON:

11 Q. The same amount, same  
12 numbers.

13 MR. CRAMER: Objection to  
14 form, incomplete hypothetical.

15 THE WITNESS: I think I  
16 would need more specificity in the  
17 hypothetical. But if Zuffa  
18 engaged in some of the same  
19 tactics that it did today to  
20 secure extension, such as refusing  
21 to either give a fighter a fight  
22 or giving the fighter an  
23 inappropriate match-up as a  
24 punishment for not extending, I

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1 think that -- I think that that --  
2 that is part of the challenged  
3 conduct and I think that those  
4 sorts of tactics would be absent  
5 in a but-for world.

6 BY MR. ISAACSON:

7 Q. Okay. But all I am focused  
8 on is if Zuffa pays more money to extend  
9 the contract, not the other -- not the  
10 other things you are pointing to.

11 A. I hear you.

12 Q. If Zuffa did that and  
13 extended these contracts to the point  
14 where they had the same effective  
15 duration as the contracts have today,  
16 would that have an anticompetitive effect  
17 in your view?

18 MR. CRAMER: Objection to  
19 form, incomplete hypothetical.

20 THE WITNESS: I mean, the  
21 way that I am hearing the question  
22 is that if Zuffa were to behave  
23 competitively, and that is compete  
24 on the merits, and keep fighters

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1 with higher payments as opposed to  
2 the exclusionary provisions, you  
3 know, would that competition on  
4 the merits be barred? And I would  
5 say that most likely not. If it's  
6 not part of the challenged  
7 conduct, then I think that it  
8 sticks around in the but-for  
9 world.

10 BY MR. ISAACSON:

11 Q. And if Zuffa offered  
12 fighters contracts of one year or less  
13 and the fighters then bargained on their  
14 own behalf for longer contracts, is that  
15 permitted in the but-for world?

16 MR. CRAMER: Incomplete  
17 hypothetical.

18 THE WITNESS: I am loathed  
19 to say that the economic model  
20 permits or disallows anything.  
21 The economic model requires, as  
22 its input, foreclosure share. And  
23 what we are trying to do now in  
24 this rebuttal report is to give

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1 more flavor or more granularity to  
2 what a but-for world would look  
3 like consistent with that lower  
4 foreclosure share.

5 And so when you ask me a  
6 question like this, it's not --  
7 it's not obvious how with that --  
8 with those ground rules how I can  
9 rule in or rule out certain  
10 aspects, unless they are obviously  
11 part of the challenged conduct.

12 BY MR. ISAACSON:

13 Q. I want to go over this again  
14 because I don't understand your answer.

15 A. Okay.

16 Q. The -- you have written that  
17 the plausible but-for world would have  
18 fighter contracts of one year or less.

19 Is that a result to have to  
20 end up one year or less, even if fighters  
21 ask for contracts greater than one year?

22 MR. CRAMER: Objection to  
23 form. Do you mean contracts  
24 exactly like the contracts that

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1 exist today or guaranteed  
2 contracts? Or -- incomplete  
3 hypothetical. You need to  
4 specify.

5 MR. ISAACSON: You are doing  
6 speaking objections now. So...

7 MR. CRAMER: You are asking  
8 unfair and incomplete questions  
9 that are vague.

10 THE WITNESS: I guess I  
11 would just have to think about it.  
12 I am not -- it's hard for me to  
13 understand how the duration of the  
14 contract would ever -- why a  
15 fighter would ever want to -- want  
16 to extend the duration all things  
17 equal. It just seems like that  
18 would represent a restriction on  
19 that fighter's mobility. So it's  
20 hard to -- it's hard to understand  
21 it, I guess, from an economic  
22 perspective.

23 BY MR. ISAACSON:

24 Q. You can't understand why a

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1 fighter would ever want the certainty of  
2 a multiyear contract?

3 MR. CRAMER: Objection to  
4 form, incomplete hypothetical.

5 THE WITNESS: Certainly not  
6 the way that these contracts work.  
7 I think that, you know, they work  
8 as one-way ratchets, and I think  
9 that you don't get paid unless you  
10 fight. And so the notion that I  
11 would -- that I would, all things  
12 equal, want to extend the contract  
13 is just -- it's not obvious to me  
14 why that would be in the fighter's  
15 economic incentive.

16 BY MR. ISAACSON:

17 Q. All right. But in your  
18 but-for world, can you conceive of  
19 fighters who would want to have contracts  
20 of greater than one year?

21 MR. CRAMER: Objection to  
22 form, incomplete hypothetical.

23 THE WITNESS: It's hard for  
24 me to conceive -- if the standard



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1 of the top-tier labor economics journals?

2 MR. CRAMER: Misstates the  
3 testimony.

4 THE WITNESS: Beyond the  
5 ones that I just gave you? I  
6 don't know if I could -- if I  
7 could give you others.

8 BY MR. ISAACSON:

9 Q. Well, which ones have you  
10 named by name?

11 A. I think I gave you  
12 the Journal of Labor Economics. I think  
13 I gave you Review of Labor Statistics, I  
14 believe is one. I am going by memory  
15 here. I think I have seen some specialty  
16 journals as well.

17 I certainly cite articles,  
18 but I don't -- I don't -- in various  
19 labor journals. But I would refer you to  
20 the rankings instead of going by my  
21 memory of labor journals.

22 Q. Okay. And you mentioned the  
23 subfield of sports. Are there leading  
24 journals in that field that you could

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1 name?

2 A. I don't know if I could name  
3 them. I certainly cited articles from  
4 them, but I would refer you to the same  
5 rankings.

6 THE VIDEOGRAPHER: Excuse  
7 me, Counsel. We are approaching  
8 ten minutes left on the disc.

9 MR. ISAACSON: Okay.

10 - - -

11 (Off the record at this  
12 time.)

13 - - -

14 MR. ISAACSON: Why don't we  
15 just change the tape.

16 THE VIDEOGRAPHER: The time  
17 is 12:22 p.m. This is the end of  
18 Disc 1. We are off the record.

19 - - -

20 (Off the record at this  
21 time.)

22 - - -

23 THE VIDEOGRAPHER: The time  
24 is 12:31 p.m. This is the start

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1 of Disc 2. We are on the record.

2 BY MR. ISAACSON:

3 Q. You talked before about how  
4 individual marginal revenue product  
5 varies between fighters, and I think we  
6 agree that fighter compensation agrees  
7 between various fighters.

8 Does current fighter  
9 compensation vary between fighters in the  
10 same way that the individual marginal  
11 revenue product varies between the  
12 fighters?

13 MR. CRAMER: Objection to  
14 form.

15 THE WITNESS: You used the  
16 word "same" and that's what I am  
17 tripping up on. There is  
18 certainly a relationship between a  
19 fighter's MRP and his or her  
20 compensation.

21 BY MR. ISAACSON:

22 Q. Would you describe that  
23 relationship as significant, substantial  
24 or minimal or --

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1 A. Again, I am going to go back  
2 to just basic labor theory, that in a  
3 competitive market, the fighter's  
4 compensation would be equal to his or her  
5 MRP, in a perfectly competitive -- let me  
6 stipulate or let me add that caveat. In  
7 a monopsonized labor market, there is a  
8 wedge between the MRP and the  
9 compensation.

10 And there is certainly a  
11 relationship under both extremes, of the  
12 monopsonized market and the perfectly  
13 competitive market. And part of the  
14 theory of the case is, as you know, that  
15 the conduct here upset that normal  
16 transmission mechanism, that is, it upset  
17 what would have otherwise -- what gains  
18 to fighter productivity that would have  
19 otherwise been passed along in the form  
20 of higher wages didn't occur, in my view,  
21 as they -- as they would have in a world  
22 absent the restrictions on fighter  
23 mobility.

24 Q. All right. I understand you

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1 to be saying that in the current world,  
2 that gains in individual marginal revenue  
3 product won't translate into individual  
4 compensation in the same way as they  
5 would in a competitive world. Then the  
6 competitive world, more of the marginal  
7 revenue product, would translate into  
8 compensation.

9 A. More of the gains.

10 Q. More of the gains.

11 A. Yes.

12 Q. Is there -- however -- with  
13 the understanding that there is not the  
14 same quantitative amount of translation,  
15 is the -- is there still some sort of  
16 linear relationship between the rate they  
17 are going up?

18 A. Again, it depends on whether  
19 we are dealing with an open and free  
20 labor market or a -- or a labor market  
21 that is subject to a monopsony.

22 What we have observed here  
23 is that fighter compensation, although it  
24 was rising, did not -- did not keep up

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1 with the rate of growth in event  
2 revenues, and I am positing that in a  
3 more competitive environment indeed  
4 showing, based on my econometric model,  
5 that the rate of increase in compensation  
6 would have been higher and more in line  
7 with the rate of increase in event  
8 revenue.

9 Q. Now, you talked before about  
10 your estimates of median career length,  
11 and I believe in your rebuttal report,  
12 it's approximately 41 months or five  
13 bouts, fights.

14 A. I think that I spent more  
15 time estimating the duration and months  
16 than in bouts. I think that -- I think  
17 that the relevant -- the relevant figure  
18 here for what we are fighting about is  
19 the duration as measured in months.

20 Q. All right. And to do  
21 that -- to do that analysis, you used  
22 data obtained from sherdog.com; is that  
23 right?

24 A. I believe so, yes.

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1 Q. And to do that calculation,  
2 you calculated a career length using  
3 fights for only those promoters in the  
4 tracked market; is that correct?

5 A. Are you speaking about in my  
6 rebuttal report?

7 Q. As of today, where do you  
8 stand on this issue?

9 A. I think the best estimates  
10 as of today is what's in my rebuttal  
11 report. I think I have tried to -- I  
12 have tried to cut it every which way  
13 that's -- what I consider to be  
14 reasonable. I have also appealed to what  
15 Zuffa itself has estimated its average  
16 duration was of fighters, and I think  
17 that my estimates are more in line with  
18 Zuffa's internal estimates.

19 Q. All right. And for your  
20 estimates, you relied on data from  
21 sherdog.com?

22 A. I think that is the  
23 beginning of it. I think I need more  
24 than just Sherdog, but I think that that

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1 is the starting point of my analysis.

2 Q. And then you calculated  
3 career length using fights that appeared  
4 in FightMetric?

5 A. It sounds right, but I think  
6 I just feel more comfortable -- given how  
7 detailed the analysis was, I would  
8 probably feel more comfortable going  
9 there and telling you exactly what we  
10 did.

11 Q. All right. You have got  
12 your rebuttal report in of front of you,  
13 if you want to look at it.

14 A. Okay. Let me see. If you  
15 have the chart handy, that might get us  
16 there faster. If not, I will try to find  
17 it.

18 Q. It might be on page 53. You  
19 have got median and mean duration to  
20 Table 1 there.

21 A. Right. But I think -- I  
22 think I now -- I now see what was  
23 tripping me up. You had imposed a  
24 requirement, the added requirement that

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1 we only measure their career span while  
2 they are within the relevant input  
3 market, and that's only the case for the  
4 second and third rows, you see. I think  
5 you --

6 Q. You -- I see. All right.

7 A. And the third market is yet  
8 a different -- I mean, those are  
9 different -- those are different market  
10 definitions. And I think you asked me  
11 for one in particular.

12 Q. All right. So when you say  
13 that your best estimate of the career of  
14 a fighter is found in your rebuttal  
15 report, would that be Table 1 on page 53  
16 of your report?

17 A. Correct.

18 Q. And there, you look at four  
19 different things. One is limited to when  
20 Zuffa fighters are fighting in Zuffa  
21 bouts; is that right?

22 A. Correct.

23 Q. So that would exclude Zuffa  
24 fighters who fought for other promoters

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1 either before or after their career at  
2 Zuffa?

3 A. Correct.

4 Q. And then you use the  
5 relevant input market tracked measure.  
6 That is based on FightMetric data,  
7 correct?

8 A. Correct.

9 Q. And that would be -- and you  
10 would only be calculating fights that  
11 were for the promoters in that market, in  
12 that -- in FightMetric?

13 A. Correct. When they go  
14 outside of the relevant input market as  
15 defined by the tracked measure, then they  
16 would no longer be considered to be  
17 active in their career.

18 Q. All right. And you would --  
19 and then for the third way you would look  
20 at it, you would look for the ranked  
21 measure, which is -- which would include  
22 only the promoters in FightMetric?

23 A. Well, my ranked measure  
24 members starts with a set of all fighters

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1 in FightMetric and then expands it  
2 to also include those that are in Fight  
3 Matrix I think plus another promotion as  
4 well.

5 Q. I think they are totally  
6 over overlapping, but let me -- let me --

7 A. Oh, it's true that the way  
8 it's constructed, the tracked measure of  
9 the market definition sits perfectly  
10 inside of the ranked measure, right.

11 Q. All right. So the ranked  
12 measure includes all the promoters who  
13 are either in Fight Matrix or  
14 FightMetric?

15 A. The fighters associated with  
16 promoters, correct, yes.

17 Q. So if you had fights outside  
18 of those promoters, those would not be  
19 counted as part of your career?

20 A. Again, I just want to be  
21 careful that as we moved to the ranked  
22 measure, the -- it's the fighter that is  
23 driving the analysis, not his or her  
24 associated promoter, right? It doesn't

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1 begin with a set of promoters. It  
2 happens to generate a set of promoters as  
3 a byproduct. But here, fighters are  
4 going to be included regardless of who  
5 their associated promoter is so long as  
6 they have a rank higher than 650.

7 Q. Right. But I'm not talking  
8 about market definition now. I am just  
9 talking about how you calculate the  
10 median career of a fighter.

11 A. Sure.

12 Q. If they -- if they had  
13 fights outside of the promoters who are  
14 counted in FightMetric or Fight Matrix,  
15 those would not be counted as part of the  
16 fighter's career?

17 A. I wouldn't -- I wouldn't put  
18 it that way. I would feel more  
19 comfortable saying something like that  
20 with respect to the FightMetric measure,  
21 which is the tracked measure, because  
22 that is driven by the identity of the  
23 promoter.

24 The identity of the promoter

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1 some help. So promoters inside of  
2 my relevant market or outside of  
3 my relevant market?

4 BY MR. ISAACSON:

5 Q. Yes, promoters inside your  
6 relevant market.

7 A. Remember -- the question  
8 doesn't make any sense because it's a  
9 hypothetical monopsonist pushing the  
10 wages down, so it is the only -- it's the  
11 only buyer in the relevant market.

12 Q. In each of the relevant  
13 markets that you defined, did you assume  
14 that Zuffa was the only relevant buyer?

15 A. No.

16 Q. In the -- for example, in  
17 the tracked market, did you test whether  
18 if you reduced the individual pay of  
19 Zuffa fighters, Bellator would step in  
20 and pay the -- pay the amount they were  
21 being paid and the fighter would move to  
22 Bellator?

23 A. I don't think the question  
24 makes sense given that Bellator wasn't

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1 included in the -- in the tracked market  
2 or at least -- sorry -- or at least  
3 Bellator's fighters. Remember, we are  
4 contemplating a hypothetical monopsonist  
5 who controlled all of the fighters in the  
6 tracked market, including Bellator's  
7 fighters. Would that be a sufficient  
8 number of fighters such that you could  
9 push wages below competitive levels.

10 Q. All right. Bellator is a  
11 promoter in the tracked market, right?

12 A. Correct.

13 Q. So is Affliction, correct?

14 A. Anyone who was tracked by  
15 FightMetric.

16 Q. Okay. So was WEC and  
17 EliteXC?

18 A. I can't tell you by memory  
19 if those were or were not.

20 Q. And did you -- I am just  
21 trying to understand by the end of your  
22 reply report what SSNIP analysis you have  
23 done.

24 Did you do any actual

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1 testing to experiment to say what would  
2 happen if Zuffa lowered what it's paying  
3 its fighters, whether those fighters  
4 would move to another promoters, such as  
5 Bellator, World Series of Fighting?

6 MR. CRAMER: Asked and  
7 answered.

8 THE WITNESS: I did -- I did  
9 look at record evidence that spoke  
10 to that, for example, that Zuffa  
11 believed that -- that anything  
12 outside of Zuffa was the minor  
13 leagues and, therefore, there  
14 wasn't much threat of a defection.  
15 Also, we have the contract  
16 themselves were preventing  
17 defections. So yes, I looked  
18 that.

19 BY MR. ISAACSON:

20 Q. Other -- so you looked at  
21 record evidence.

22 A. Yes.

23 Q. Other than looking at the  
24 record evidence, did you do any testing

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1 to determine whether fighters in any of  
2 your -- in any of your markets you were  
3 defining would move to another promoter,  
4 such as Bellator or World Series of  
5 Fighting, if their individual pay  
6 declined?

7 MR. CRAMER: Objection to  
8 form.

9 THE WITNESS: When you think  
10 about it, once you get into the  
11 tracked, and particularly once you  
12 get into the ranked, the market is  
13 drawn so broadly that it subsumes  
14 all of these rival promoters. So  
15 the question just doesn't make  
16 sense as posed. They are all in  
17 the relevant market.

18 BY MR. ISAACSON:

19 Q. Well, are you saying that  
20 all -- all the rival promoters are in the  
21 tracked market or in the ranked market or  
22 in both?

23 A. No, that's not what I am  
24 saying. I'm saying that your question

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1 pertained to Bellator, I think, and  
 2 Bellator is inside of the tracked. And  
 3 so it doesn't make sense to ask whether a  
 4 fighter in this hypothetical market would  
 5 substitute to Bellator. It's already in  
 6 there. We are asking if you control all  
 7 of those fighters, in addition to Zuffa's  
 8 fighters, in addition to whoever else is  
 9 inside of the tracked market, would that  
 10 be enough to permit you to exercise  
 11 monopsony power.

12 So I could help you along,  
 13 but asking if they would substitute to  
 14 Bellator isn't -- is nonsensical.

15 Q. Well, you agree with me that  
 16 for the tracked market, Bellator,  
 17 EliteXC, WEC and other promoters are  
 18 participants in that market?

19 A. I don't like to put it that  
 20 way, no.

21 Q. All right. Do you agree  
 22 that they are customers for the fighters?

23 A. They are buyers in that --  
 24 in that market, yes.

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1 Q. Okay. So in the tracked  
 2 market, did you test whether fighters in  
 3 that market would move to another buyer  
 4 in that market such as Bellator if their  
 5 individual pay declined other than  
 6 looking at record evidence?

7 A. Again, no, and that's not  
 8 the relevant experiment to perform.

9 Q. Okay. And in the tracked  
 10 market, did you test whether fighters in  
 11 that market would move to another buyer  
 12 in that market such as World Series of  
 13 Fighting if their individual pay declined  
 14 other than looking at record evidence?

15 A. World Series of Fighting, I  
 16 just can't recall if that's a promoter  
 17 that was tracked by FightMetric. You  
 18 might -- you might be able to help me  
 19 out, and then I could give you an answer.

20 Q. World Series of Fighting is  
 21 included in the -- is included in Fight  
 22 Matrix in your tracked -- in your  
 23 tracked --

24 A. Did you mean to say Fight --

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1 FightMetric?

2 Q. Ranked market.

3 A. Oh, ranked market.

4 Q. Yes.

5 A. So have you identified -- I  
 6 think it would help me. You have  
 7 identified a promoter now for the first  
 8 time in the series of questions that sits  
 9 outside of the tracked but inside of the  
 10 ranked.

11 Q. Yes.

12 A. Got it.

13 Q. And maybe it will help if I  
 14 repeat the question --

15 A. Okay.

16 Q. -- if anybody ever reads  
 17 this.

18 A. Okay.

19 Q. The -- in the -- in the  
 20 ranked market, did you test whether  
 21 fighters in that market would move to  
 22 another buyer in the market such as World  
 23 Series of Fighting if their individual  
 24 pay declined other than what you have

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1 said, you looked at revenue evidence?

2 A. I would say no. They are --  
 3 they are already in the ranked market and  
 4 so we are not looking at substitution  
 5 within the ranked market. That's not the  
 6 relevant inquiry.

7 Q. Okay. And -- all right.  
 8 Now, for each of those markets, let's go  
 9 to promoters that are outside the market.  
 10 Okay.

11 So for the tracked market,  
 12 did you look at -- did you test whether  
 13 fighters in that -- let me start over.

14 In the tracked market, other  
 15 than looking at record evidence, did you  
 16 test whether fighters in that market  
 17 would move to another buyer outside the  
 18 market such as World Series of Fighting  
 19 if their individual pay declined?

20 A. I think that it was largely  
 21 informed through record evidence and  
 22 through other inferences that I made,  
 23 such as the profitability of Zuffa's  
 24 weight suppression with a much smaller



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1 set of fighters. I think that there was  
2 not a separate empirical analysis of  
3 defection of fighters from -- the  
4 promoters included -- in tracked, for  
5 example, into the promoters included in  
6 ranked but not in tracked.

7 Q. And your answer would be the  
8 same for ranked that -- in terms of the  
9 type of analysis you used?

10 A. Yes.

11 Q. And your answer would be the  
12 same for the headliner submarket?

13 A. Correct.

14 MR. CRAMER: Whenever it's a  
15 good time for a break, we have  
16 been going for over an hour.

17 MR. ISAACSON: I think I may  
18 be almost finished with something  
19 here.

20 MR. CRAMER: Sure.

21 BY MR. ISAACSON:

22 Q. Did you consider any  
23 narrower definitions to the market, by  
24 which I mean did you consider a smaller

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1 market of buyers than your tracked  
2 market?

3 A. Sure, the headliner market.  
4 The headliner submarket, as I like to  
5 call it.

6 Q. Was the headliner submarket  
7 the smallest market you considered?

8 A. That is the smallest market  
9 I considered.

10 MR. ISAACSON: All right.  
11 Why don't we take a break.

12 THE VIDEOGRAPHER: The time  
13 is 2:33 p.m. We are going off the  
14 record.

15 - - -

16 (Off the record at this  
17 time.)

18 - - -

19 THE VIDEOGRAPHER: The time  
20 is 2:51 p.m. We are back on the  
21 record. This is the start of  
22 Disc 3.

23 BY MR. ISAACSON:

24 Q. Before the break, we were

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1 talking about the markets you defined.  
2 With respect to the tracked market, did  
3 you include all of the fighters that  
4 fought for all of the buyers in that  
5 market?

6 A. It's conceivable that there  
7 are some fighters who were out listed in  
8 FightMetric but are affiliated with a  
9 promoters who is. It's conceivable. But  
10 I think I am more comfortable saying that  
11 we let the FightMetric data dictate who  
12 was in the market. It's just whoever  
13 they tracked.

14 Q. Okay. And the reason that  
15 you didn't include all of the fighters  
16 for all of the promoters in the tracked  
17 market is because you let the FightMetric  
18 data dictate who was in the market?

19 A. Not really. I think that we  
20 are -- we are getting confused again  
21 about -- about the market definition  
22 exercise and the way that I measured and  
23 identified fighters in the market.

24 I used various techniques,

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1 indirect and direct, of the SSNIP test to  
2 try to inform the contours. And I got to  
3 an MMA fighter relevant input market, and  
4 then I went out and found two databases,  
5 one by FightMetric, another by Fight  
6 Matrix, that would allow me to inform or  
7 populate who the fighters were in that  
8 market after we have defined it using the  
9 SSNIP test.

10 So I -- I am just hesitating  
11 on the way that you put the question.  
12 It's not as if the database dictated who  
13 was in the market. We defined a market  
14 as MMA -- professional MMA fighters, and  
15 then we went out looking for databases  
16 that would allow us to populate that  
17 market with actual fighters.

18 Q. Did you use the SSNIP test  
19 to populate who were the buyers in the  
20 market you defined?

21 A. No.

22 Q. Why -- why didn't you  
23 include all of the fighters who fought  
24 for buyers in the tracked market in your



1 A. Yes.

2 Q. Now, your output markets are  
3 the live MMA events in which the  
4 participating fighters are either in the  
5 relevant input market or the relevant  
6 input submarket?

7 A. Yes.

8 Q. Okay. And the consumers of  
9 the output market include viewers, cable  
10 networks, broadcast networks and  
11 sponsors; is that fair?

12 A. Well, certainly, viewers and  
13 consumers.

14 Can I hear -- can I hear --

15 Q. Viewers, cable networks,  
16 broadcast networks, sponsors.

17 A. I feel more comfortable  
18 saying that viewers are the -- are the  
19 primary consumers in the output market,  
20 not the -- not the cable distributors.  
21 That's just an intermediary between the  
22 viewer and the -- and the producer of the  
23 event.

24 Q. So I am not -- I wasn't

1 trying to assess anybody as primary or  
2 secondary.

3 Rather, consumers -- do the  
4 consumers in your output market include  
5 viewers, cable networks, broadcast  
6 networks and sponsors?

7 MR. CRAMER: Asked and  
8 answered.

9 THE WITNESS: I don't recall  
10 looking at substitution by  
11 sponsors or substitution by cable  
12 distributors. I think that the  
13 right lens is that of the  
14 consumer's perspective, ultimately  
15 the viewer.

16 BY MR. ISAACSON:

17 Q. All right. Well, let me use  
18 a -- maybe it's my word choice.

19 Are the customers in your  
20 relevant output market viewers, cable  
21 networks, broadcast networks and  
22 sponsors?

23 MR. CRAMER: Objection to  
24 form.

1 THE WITNESS: And let's just  
2 focus on cable networks. Are  
3 you -- I took your first question  
4 to mean cable distributors. Are  
5 you -- are you intentionally  
6 making a distinction between cable  
7 networks and cable distributors  
8 now?

9 BY MR. ISAACSON:

10 Q. No. I am not even sure what  
11 you mean by a cable distributors.

12 A. Oh, a cable distributor  
13 would be like Comcast, and a cable  
14 network would be like a station or a  
15 network that appears on the cable system.

16 Q. I mean -- well, let's --  
17 let's do both.

18 A. Okay.

19 Q. So -- so Comcast is under  
20 your definition a cable station?

21 A. No. Comcast is a  
22 distributor.

23 Q. A distributor. Okay.

24 A. Comcast happens to be

1 vertically integrated into certain  
2 networks as well. But...

3 Q. All right. Okay. So are  
4 the customers in your relevant output  
5 market viewers, cable stations, cable  
6 networks, broadcast networks and  
7 sponsors?

8 MR. CRAMER: Form.

9 THE WITNESS: I think that  
10 I -- the most natural customer to  
11 think of in the output market,  
12 which is the consumption of the  
13 event, is the viewer. I think  
14 that we could -- we could talk  
15 about the way that sponsors -- the  
16 role that sponsors play in this  
17 market and the role that cable  
18 networks play, but I -- they are  
19 not -- they are not symmetrically  
20 aligned with the viewers. And I  
21 think that if -- I am trying to  
22 recall the methods that I used to  
23 define the contours, and I think  
24 it was largely from the

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1 perspective of viewers.

2 BY MR. ISAACSON:

3 Q. So for your relevant output  
4 market, are sponsors customers in that  
5 market?

6 MR. CRAMER: Asked and  
7 answered.

8 THE WITNESS: I just don't  
9 like using -- I don't like using  
10 the word "customer."

11 BY MR. ISAACSON:

12 Q. Okay. Are -- in your output  
13 market, are sponsors buyers in that  
14 market?

15 MR. CRAMER: Asked and  
16 answered.

17 THE WITNESS: Sponsors are  
18 buying advertising slots that are  
19 associated with the event itself,  
20 but I think the consumption of the  
21 event is most properly understood  
22 from the lens of the viewer, the  
23 consumer.  
24

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1 BY MR. ISAACSON:

2 Q. So does that mean sponsors  
3 are not buyers in your relevant output  
4 market?

5 MR. CRAMER: Asked and  
6 answered.

7 THE WITNESS: They buy  
8 advertising slots that are sold  
9 alongside the event itself, but I  
10 am -- I am considering the event  
11 as the -- as what's being  
12 produced.

13 BY MR. ISAACSON:

14 Q. Okay. In your relevant  
15 output market, are broadcast networks --  
16 I guess you don't like using the term  
17 "customers" for broadcast networks; is  
18 that --

19 A. They are certainly not  
20 the -- not the ultimate customer. They  
21 are an intermediary that gets them  
22 between the ultimate customer and the  
23 producer. And only for a small sliver of  
24 events.

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1 I think the action, the  
2 television action at least, is occurring  
3 on the pay-per-view side, not on the  
4 non-pay-per-view viewing side.

5 Q. As you define your relevant  
6 output market, are broadcast networks  
7 customers or buyers?

8 A. I think the broadcast  
9 networks are buying the rights to  
10 distribute the events to the ultimate  
11 consumer, which is the viewer. So I  
12 still like to think about the consumer or  
13 the buyer in the output market, the  
14 event, the production of the event as the  
15 consumer, the viewer, ultimately.

16 Q. And so I just need to go  
17 over this again because I understand you  
18 think the consumer -- you think about the  
19 consumer as the -- I guess as the -- as  
20 the buyer ultimately, but I am trying to  
21 figure out who you are excluding. I  
22 understand you have got the consumers in  
23 there.  
24

Are broadcast networks

Page 550

1 customers or buyers in your -- in the  
2 relevant output market you have defined?

3 MR. CRAMER: Asked and  
4 answered.

5 THE WITNESS: I think they  
6 are an intermediate -- an  
7 intermediary that stands between  
8 the customers and the producers of  
9 the events, and only for a small  
10 sliver of what I consider the  
11 valuable television that's being  
12 produced here.

13 BY MR. ISAACSON:

14 Q. So does that mean they are  
15 or are not customers or buyers in your  
16 relevant output market?

17 A. I think -- sorry.

18 MR. CRAMER: I was going to  
19 say, same objection.

20 Go ahead. You may answer.

21 THE WITNESS: I would -- I  
22 would say it depends on how you  
23 want to -- what question are you  
24 trying to answer?

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1 BY MR. ISAACSON:

2 Q. I am talking about the  
3 questions you are answering that you are  
4 defining in your market. I am talking  
5 about your relevant output market.

6 A. Sure.

7 Q. Are the buyer -- are the  
8 broadcast networks buyers or customers in  
9 that market?

10 MR. CRAMER: Same objection.

11 THE WITNESS: I think

12 that -- I would have to go back to  
13 my initial report, but if I am  
14 remembering correctly, I was  
15 looking at to where viewers would  
16 go in response to a SSNIP in the  
17 output market, not where cable  
18 distributors would go, not where  
19 cable networks would go. I was  
20 looking at where viewers would go.  
21 That's my memory, sitting here  
22 today, as to -- as to how I  
23 performed the SSNIP in the output  
24 market.

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1 BY MR. ISAACSON:

2 Q. So at the -- by the end of  
3 your reply report, you have not done a  
4 SSNIP analysis for your output market for  
5 sponsors; is that correct?

6 MR. CRAMER: Objection to  
7 form.

8 THE WITNESS: I would have  
9 to go back and look at my initial  
10 report, but I -- my -- sitting  
11 here, I don't -- I don't recall  
12 doing that.

13 BY MR. ISAACSON:

14 Q. Okay. And at the end of  
15 your reports, for your -- for the  
16 relevant output market you have defined,  
17 you haven't done a SSNIP analysis for  
18 broadcast networks; is that correct?

19 A. I think the same answer.

20 It's possible I had record evidence that  
21 spoke to the views of broadcasters, but  
22 I -- sitting here, that's not what I  
23 recall.

24 Q. Okay. For your relevant

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1 output market as you define it, you  
2 didn't do a SSNIP analysis for cable  
3 stations or cable networks?

4 A. I don't recall doing a  
5 SSNIP, but I would have to go back and  
6 refer to my -- from that perspective, but  
7 I would have to go back and refer to my  
8 initial report.

9 Q. Okay. And do you -- are you  
10 able to say today whether cable stations  
11 or cable networks are customers in the  
12 relevant output market that you defined?

13 A. I think that with the caveat  
14 that we are studying the non-pay-per-view  
15 events, which, of course, are not the  
16 important or salient or marketable or  
17 valuable component of the content that's  
18 being created, I think that you could say  
19 that the cable networks can serve as a  
20 proxy for the preferences of the ultimate  
21 consumers, but I think that I conducted  
22 my relevant output market analysis from  
23 the perspective of the ultimate consumers  
24 or customers, namely, the viewers.

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1 Q. Are the consumers the only  
2 relative -- relevant customers in the  
3 output market you have defined?

4 A. Can I have it back?

5 - - -

6 (The reporter read from the  
7 record as requested.)

8 - - -

9 BY MR. ISAACSON:

10 Q. And by "consumers," I mean  
11 individuals who attend or watch events,  
12 such as myself.

13 A. I am going to have it back.  
14 I am sorry.

15 Q. Sure. I don't blame you.

16 - - -

17 (The reporter read from the  
18 record as requested.)

19 - - -

20 BY MR. ISAACSON:

21 Q. And by "consumers," I mean  
22 individuals who attend events or watch  
23 them.

24 A. I don't know what it means

1 market, estimates the additional live  
2 events that would have taken place if you  
3 eliminated the challenged conduct?

4 A. Events that occur -- that  
5 are -- that are implicated or occur  
6 within that ranked definition. With  
7 that -- with that caveat, yes, we are  
8 comparing -- we are just taking a trend  
9 of events that fall within a certain  
10 market definition and comparing it to  
11 what actually happened. And no matter  
12 what definition I use, it appears as if  
13 there is a drop-off in industry events  
14 despite the fact that Zuffa's event are  
15 rising.

16 Q. All right. And so within  
17 the rank -- now, absent the challenged  
18 conduct -- we talked about absent the  
19 challenged conduct to some -- for quite a  
20 while for your regressions and impact  
21 analysis. I don't want to go back over  
22 that.

23 Is your but-for world of the  
24 absence of challenged conduct for

1 purposes of Figure 4B the same world  
2 where you have a foreclosure percentage  
3 of 30 percent or below?

4 A. I think it's the same  
5 but-for world, but I am not -- I am not  
6 using that same regression model as the  
7 tool or the mechanism that allows me to  
8 make this projection. I am simply taking  
9 a trend of output at the industry level  
10 and projecting it forward from 2010.

11 Q. All right. So in Figure 4B,  
12 using the ranked definition, you are  
13 estimating how many additional bouts  
14 would have taken place from 2010 to 2016,  
15 assuming that there was foreclosure of  
16 30 percent or less?

17 A. Well, that last part of the  
18 question doesn't completely make sense to  
19 me. These are -- there is not a specific  
20 but-for foreclosure share that's lurking  
21 in the background. I don't have to  
22 specify but-for foreclosure share to  
23 calculate an output factor to demonstrate  
24 an output effect in this analysis.

1 Q. All right. Let me try it  
2 this way: In Figure 4B, using the ranked  
3 definition, you are estimating how many  
4 additional bouts would have taken place  
5 from 2010 to 2016, assuming the same  
6 but-for world that would cause a  
7 foreclosure share of 30 percent or less?

8 A. So are you asking me what  
9 the implied reduction in output was in  
10 the ranked market?

11 Q. I am just trying to  
12 understand your but-for world.

13 A. Oh, the but-for world is --  
14 the but-for world doesn't vary as we move  
15 across my analyses. I am -- I am just  
16 telling you we don't -- this analysis  
17 that we do here, as you may or may not  
18 know, is -- does not depend on my  
19 specifying a but-for foreclosure level.  
20 This is a trend analysis. This is a  
21 before/after analysis.

22 Q. I realize that. But the --  
23 your but-for world in Figure 4B is the  
24 same but-for world that generates a

1 foreclosure percentage of 30 percent or  
2 less?

3 A. I think that's fair.

4 Q. Okay. And using your trend  
5 analysis, if I am reading this right, in  
6 2016, for Zuffa events, which there were  
7 approximately a little less than 700 in  
8 the actual world, the -- in your  
9 estimation -- no, actually you are not  
10 estimating the Zuffa event.

11 So let me -- the total event  
12 account. The total MMA event account --  
13 actually, that's kind of confusing.

14 Why is the total MMA account  
15 less than the Zuffa account?

16 A. The Zuffa numbers are on  
17 the -- are on the left-hand side. If you  
18 want to read --

19 Q. I am looking at the blue  
20 line and the green line.

21 A. Mine don't have  
22 color-coding, but --

23 MR. CRAMER: Here.

24 THE WITNESS: Okay. If you

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1 want to read off the Zuffa event  
2 count, you need to go to the axis  
3 on the left-hand side.

4 BY MR. ISAACSON:

5 Q. Yes, I understand that.

6 But -- oh, but the --

7 A. And if you want to read off  
8 the total or the non-Zuffa, you have to  
9 go get the relevant curve and then go to  
10 the right axis, the second axis.

11 Q. So -- all right. So the  
12 Zuffa count would be 40-some. That's  
13 right, because you are not going to have  
14 hundreds of those. And for the green --  
15 for the total, you are going to have a  
16 little over 600?

17 A. Which part of the -- so I  
18 am -- I am following the green. Which  
19 part of the green line -- oh, by 2016,  
20 you're right --

21 Q. 2016.

22 A. -- that in the actual world,  
23 what this is telling us is that there  
24 were somewhere between 600 and, say, 700

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1 events that featured someone in the  
2 ranked definition, which is fairly broad.  
3 Remember, this is anybody in the top 650.

4 Q. Right. So -- and in your  
5 estimation, in the same world it gets you  
6 a 30 percent foreclosure share or less,  
7 the amount of total MMA event in 2016  
8 would rise from -- some amount over 600  
9 to a little over 1,800?

10 A. If you have -- if you  
11 defined your market so broadly as to  
12 include anyone in the ranked definition,  
13 you have to recall, these are -- these  
14 are going to be events that feature  
15 fighters who are relatively obscure in  
16 MMA.

17 I think there is a reason  
18 why I didn't use the same kind of A/B  
19 convention in this figure as I did for  
20 4A, in part, because I think the ranked  
21 definition is likely too broad to get a  
22 reliable estimation of the output effect  
23 here. I think -- I think that I would  
24 point you to more realistic market

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1 definitions.

2 Q. Okay. But am I right that  
3 for the ranked definition which you are  
4 projecting as an increase in bouts from  
5 over 600 to a little over 1,800?

6 A. What this graph shows is  
7 that had the trend from 2001 --

8 Q. I am sorry. That was for  
9 2016.

10 A. What this shows is that had  
11 the trend in total events in this market  
12 definition, the ranked definition,  
13 persisted, the trend that went from 2001  
14 to 2010, had it persisted, then by 2016,  
15 total events would be somewhere on the  
16 order of 1,800.

17 Q. All right. And based on  
18 that, you reached the opinion that there  
19 would be over 1,800 events in the ranked  
20 definition in the year 2016 in the  
21 absence of the challenged conduct?

22 A. I don't think that that's  
23 the opinion that I reached. I think that  
24 I am trying to be complete with respect

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1 to every plausible market definition to  
2 show that output was restricted here.

3 Q. All right. Now, let me see  
4 if I can understand -- do you have an  
5 opinion as to how many additional bouts  
6 there would be within the ranked  
7 definition in 2016 in the absence of the  
8 challenged conduct?

9 A. I don't think that I have  
10 ever said that I am predicting that  
11 exactly 1,800 events would have occurred.  
12 I think that what I am saying is that had  
13 the trend persisted, the trend from 2001  
14 to 2010, then one would predict that by  
15 2016, this industry would have grown to  
16 something on the order of 1,800 events.

17 Q. All right. But based on  
18 that trend, are you reaching any opinions  
19 about how many events would have taken  
20 place within the ranked definition in  
21 2016 in the absence of the challenged  
22 conduct?

23 A. I think the opinion that I  
24 am willing to make or take based on this



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1 chart in conjunction with all the other  
2 charts that I have is that there was an  
3 output effect and that revenue --  
4 industry output fell no matter -- from  
5 2010, no matter how you define the  
6 relative input market.

7 Q. All right. But are you able  
8 to quantify that output effect within the  
9 ranked definition?

10 A. One could quantify it if one  
11 were truly interested in getting a  
12 number, but I don't know -- I don't know  
13 what the precise number gives you above  
14 and beyond that inference that can be  
15 drawn by saying that it fell with respect  
16 to every way you define the market.

17 Q. Have you quantified an  
18 output effect within the ranked  
19 definition of total events from the -- by  
20 eliminating the challenged conduct?

21 MR. CRAMER: Asked and  
22 answered.

23 THE WITNESS: I don't think  
24 that I have -- I have quantified

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1 doing is we first plot the non-Zuffa  
2 event account, which is the red line,  
3 right, through 2010, and then we -- and  
4 then we fit a trend line from 2001 to  
5 2010 and we extrapolate forward and we  
6 say of that trend had persisted, then  
7 non-Zuffa events would have continued  
8 increasing and would have -- would have  
9 reached a certain level by 2016.

10 Q. All right. So in Figure 4A,  
11 the red dotted line is your trend line  
12 for non-Zuffa events; is that correct?

13 A. Fit -- yes. But  
14 importantly, fit from 2001 to 2010 only.

15 Q. By "fit," meaning you are  
16 projecting the trend for 2010 through  
17 2016 by the trend prior to 2010?

18 A. That's fairly close. We fit  
19 the trend with data from '01 to 2010, and  
20 then we project forward through 2016.

21 Q. All right. And based on  
22 that trend analysis -- well, first of  
23 all, in 2016, there is -- for non-Zuffa  
24 events, there is -- it looks like there

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1 it.

2 BY MR. ISAACSON:

3 Q. All right. Let me go to the  
4 tracked definition.

5 A. Okay.

6 Q. So here, for the number of  
7 bouts, I just look at the left axis; is  
8 that correct?

9 A. Correct.

10 Q. Okay. And help me  
11 understand the brackets that are the  
12 A and B.

13 A. Sure.

14 Q. So there is the dotted line  
15 that goes to the top of the B bracket.

16 Do you see that?

17 A. Yes.

18 Q. Okay. The -- is that a  
19 combination of the Zuffa event and  
20 non-Zuffa events reflected in the blue  
21 line and the red line?

22 A. No. The dotted red is the  
23 legend that tells you it's the but-for  
24 non-Zuffa event count. So all we are

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1 is approximately 20 events?

2 A. In the actual world, yes,  
3 2016, it looks like there were about 20  
4 non-Zuffa events that are in the tracked  
5 definition.

6 Q. All right. And in the  
7 but-for world, there is a little over 40  
8 events?

9 A. For non-Zuffa, correct.

10 Q. For non-Zuffa?

11 A. Correct.

12 Q. So is it your opinion, based  
13 on the trend analysis in Figure 4A, that  
14 for the tracked definition, that in the  
15 absence of the challenged conduct, the  
16 number of non-Zuffa events would have at  
17 least doubled in 2016?

18 A. I think my opinion is that  
19 there is evidence here of an output  
20 effect, of output suppression. That --  
21 that's my opinion. Whether I am able to  
22 quantify that to any reasonable degree is  
23 a related question, and, of course, my  
24 best estimate, if you insist, would be



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1 red line, which is the ranked foreclosure  
2 share, the foreclosure share goes from  
3 zero percent to over 70 percent, correct?

4 A. Well, you are -- from 2005  
5 until 2010?

6 Q. No. From -- well, I am  
7 sorry. Let's do from 2007 until 2010.  
8 They go from 20 percent to over 70  
9 percent, correct?

10 A. Correct.

11 Q. And then after 2010, the  
12 ranked foreclosure share goes from 70  
13 percent to 90 percent and then declines  
14 back under 80 percent, correct?

15 A. Correct.

16 Q. For the headliner share from  
17 2007 to 2010, the foreclosure share goes  
18 from, say, 35 percent to 90 percent,  
19 correct?

20 A. Are you on -- the headliner,  
21 which --

22 Q. That's purple.

23 A. The purple, the revenue  
24 weighted?

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1 Q. Yes.

2 A. Okay. I agree, 35 percent  
3 looks pretty close, yes.

4 Q. And for the tracked revenue  
5 weighted from 2007 to 2010, it goes --  
6 the foreclosure share goes from 40  
7 percent to 90 percent, and then after  
8 2010, it stays close to 90 percent,  
9 correct?

10 A. Are we on the purple now?

11 Q. No. That was the blue.

12 A. The blue.

13 Q. Tracked revenue weighted.

14 A. The blue goes up after  
15 2000 -- I mean, both the purple and the  
16 blue go up after 2010.

17 Q. But they go up between 90  
18 and 100 percent, correct?

19 A. Correct, but it's still an  
20 increase.

21 Q. They go from 30 to 40  
22 percent to 90 percent between 2007 and  
23 2010. And after 2010, they go from  
24 someplace, from anywhere from 90 to 95

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1 percent.

2 Does that sound right?

3 A. For those two measures, I  
4 think that's a fair characterization.  
5 They are still going up after 2010.

6 Q. All right. So going back to  
7 Figure 4A, am I correct that the  
8 foreclosure shares in the trend for --  
9 for the period before 2010 where you are  
10 using the actual trends, that's the  
11 period where the actual foreclosure rate  
12 was rising the most rapidly, correct?

13 A. It is -- it is a true  
14 statement that foreclosure was rising  
15 more rapidly prior to 2010 than after,  
16 but it continued to rise after 2010.

17 Q. All right. And so if the  
18 foreclosure share was rising most  
19 significantly before 2010 compared to  
20 after 2010, why does it make sense to  
21 construct a trend line for before and  
22 after 2010 to measure the effect of  
23 foreclosure on output?

24 A. Well, I think that, if

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1 anything, it would -- it would make the  
2 analysis conservative. It's basically  
3 saying that the benchmark that I am  
4 using, which is the pre-2010 period, was  
5 already tainted or contaminated by  
6 Zuffa's monopsony power. So that trend  
7 was already potentially reduced by virtue  
8 of Zuffa's monopsony power. And if we  
9 could -- if we could have removed that  
10 prior to 2010, it would serve as an even  
11 better benchmark.

12 Q. Well, isn't another way of  
13 looking at this that the faster the  
14 foreclosure share rises, the faster  
15 output rises, according to your chart?

16 A. No.

17 Q. No.

18 A. What we don't get to see is  
19 what -- what would have happened to  
20 output in the absence of Zuffa  
21 monopolizing the market, selling up more  
22 and more fighters beginning 2001.

23 Q. Am I mathematically correct  
24 that what I am observing is that the

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1 faster the foreclosure share rises, the  
2 faster output rises in your charts 4A --  
3 in your chart 4A?

4 MR. CRAMER: Asked and  
5 answered.

6 THE WITNESS: That's not the  
7 right inference, no.

8 BY MR. ISAACSON:

9 Q. I'm not asking you about the  
10 inference. I'm just -- am I -- am I  
11 seeing the numbers right? Mathematically  
12 am I correct that the faster the  
13 foreclosure share rises, the faster  
14 output rises as reflected in those  
15 charts?

16 A. No, that's not -- you are --  
17 you are stating it as if one is causing  
18 the other or are related in any way, and  
19 they are not.

20 Q. Okay. Without inferring any  
21 causation, I just want to know if I am  
22 looking at the charts correctly.

23 A. I don't think you are  
24 looking at the charts correctly.

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1 Q. Okay. The -- are you aware  
2 of any trend analysis which show that the  
3 faster the foreclosure rate rises, output  
4 declines?

5 A. I don't understand. Are  
6 you -- are you asking me about the  
7 analyses that I have performed?

8 Q. Sure.

9 A. I -- I certainly don't -- I  
10 haven't performed any analyses that would  
11 illuminate that point.

12 Q. All right. And so if we  
13 look at Figure 4C.

14 A. Okay.

15 Q. This is your headliner  
16 measure. And here, for total events, the  
17 green line, your trend analysis here  
18 shows that, say, approximately 60 -- we  
19 will call it 66 actual events took place  
20 in 2016, total MMA events.

21 And according to your trend  
22 analysis, you would have expected over  
23 100 in 2016?

24 A. In the headliner submarket,

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1 that's correct, yes.

2 Q. And so -- in the non-Zuffa  
3 events with headliners, according to your  
4 trend analysis, would have risen from an  
5 actual number of a little over 20 to an  
6 amount -- to, it looks like, 60 events;  
7 is that right?

8 A. Just if I could put it in my  
9 own words, had the -- had the trends of  
10 2001 to 2010 persisted, you would have --  
11 you would have declined to only around 60  
12 non-Zuffa events featuring headliners as  
13 opposed to what happened in the actual  
14 world, which was something around 30.

15 Q. Do you conclude from this  
16 trend analysis that output of either --  
17 are you able to quantify from this trend  
18 analysis the extent to which output would  
19 have risen in the absence of the  
20 challenged conduct?

21 A. Well, if you -- if you  
22 wanted to quantify it -- and for an  
23 analysis that I performed in my rebuttal  
24 report, I do -- I do quantify it, but if

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1 you wanted to quantify it, you could look  
2 at the difference between the dash lines  
3 and the straight lines.

4 Q. Okay. This isn't about what  
5 I want to do. This is about what  
6 opinions you are giving.

7 A. Sure.

8 Q. Are you quantifying the  
9 amount of output? Are you giving the  
10 opinion that the amount of output would  
11 have increased in the absence of the  
12 challenged conduct by the difference  
13 between the actual numbers and the  
14 current -- and the trend number in 2016?

15 A. I think that a fair  
16 characterization of my opinion is that  
17 output was reduced, and if you wanted to  
18 quantify it, the best estimate that I  
19 could give would be the difference  
20 between the dash lines, the projections  
21 and the actual lines.

22 Q. In your rebuttal report, in  
23 paragraph 49.

24 A. Okay. Paragraph 49?

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Q. All right.  
 MR. ISAACSON: Thank you. I  
 don't have any more questions.  
 MR. CRAMER: Very good.  
 THE VIDEOGRAPHER: Okay.  
 The time is 5:12 p.m. This is the  
 end of Dr. Hal Singer's  
 deposition. We are going off the  
 record.

- - -  
 (The deposition concluded at  
 5:12 p.m.)  
 - - -

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## INSTRUCTIONS TO WITNESS

Please read your deposition over  
 carefully and make any necessary  
 corrections. You should state the reason  
 in the appropriate space on the errata  
 sheet for any corrections that are made.

After doing so, please sign the  
 errata sheet and date it.

You are signing same subject to the  
 changes you have noted on the errata  
 sheet, which will be attached to your  
 deposition.

It is imperative that you return  
 the original errata sheet to the deposing  
 attorney within thirty (30) days of  
 receipt of the deposition transcript by  
 you. If you fail to do so, the  
 deposition transcript may be deemed to be  
 accurate and may be used in court.

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## CERTIFICATE

I HEREBY CERTIFY that the  
 witness was duly sworn by me and that  
 the deposition is a true record of  
 the testimony given by the witness.

\_\_\_\_\_  
 Lori A. Zabielski  
 Registered Professional Reporter  
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## ACKNOWLEDGEMENT OF DEPONENT

I, \_\_\_\_\_, do  
 hereby certify that I have read the  
 foregoing pages, 338-652 PGS, and that  
 the same is a correct transcription of  
 the answers given by me to the questions  
 therein propounded, except for the  
 correction or changes in form or  
 substance, if any, noted in the attached  
 Errata Sheet.

\_\_\_\_\_  
 HAL J. SINGER, Ph.D.      DATE

Subscribed and sworn  
 to before me this  
 \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

My commission expires:

\_\_\_\_\_.

\_\_\_\_\_  
 Notary Public

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LAWYER'S NOTES  
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